



The Museum of Yesterday Mystery

Grade 2 math · Subtraction, Addition, Place value, Skip counting, Missing addends · Reading level grades 1-2

Detective: _____ Date: _____

Oh no! A sneaky Time Thief broke into the Museum of Yesterday and hid the golden dinosaur bone! The Head Curator needs your help. Use your math skills to find the thief before the museum opens!

1. Solve each math problem. The answer is a number, and the letter beside it is what that number stands for.
2. In the clue boxes, write that letter in every box showing the same number, then read the secret clue.
3. Use each clue to cross suspects off the list. The one suspect left at the end is the culprit!

My answer: the Time Thief is _____

Possible suspects

Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	TIME GADGET	MUSEUM BADGE	WRITING HAND	WIG STYLE	LOUD SOUND
Clara	pocket sundial	wax seal	left handed	curly brown wig	train whistle
Ludwig	spy glass	feather quill	left handed	braided black wig	train whistle
Marie	pocket sundial	silver coin	right handed	curly brown wig	steamboat horn
Betsy	iron key	feather quill	right handed	curly brown wig	train whistle
Susan	brass compass	feather quill	right handed	curly brown wig	train whistle
Vincent	brass compass	wax seal	right handed	powdered white wig	clanging bell
Cleo	brass compass	silver coin	right handed	curly brown wig	train whistle
Joan	sand timer	silver coin	right handed	powdered white wig	train whistle
Florence	spy glass	wax seal	left handed	braided black wig	steamboat horn
Harriet	spy glass	gold crown	right handed	powdered white wig	train whistle
Eleanor	iron key	feather quill	left handed	braided black wig	clanging bell
George	iron key	wax seal	left handed	curly brown wig	train whistle
Rosa	spy glass	wax seal	right handed	powdered white wig	train whistle
Amelia	brass compass	feather quill	left handed	braided black wig	steamboat horn
Ben	brass compass	silver coin	right handed	curly brown wig	clanging bell
Abe	spy glass	scroll map	right handed	curly brown wig	steamboat horn
Thomas	iron key	silver coin	left handed	curly brown wig	train whistle
Albert	spy glass	wax seal	left handed	powdered white wig	train whistle
Leonardo	sand timer	gold crown	right handed	curly brown wig	train whistle
Booker	pocket sundial	feather quill	right handed	curly brown wig	train whistle
Jane	iron key	gold crown	right handed	braided black wig	steamboat horn

CLUE 1

Subtraction

The curator had ten old maps on the wall but some fell down. We subtract the ones on the floor to see how many are left. This tells us about the thief's badge!

Solve each problem, then write its letter in every clue box that shows the same number.

T			T																
31	42	33	31	42	61	33	78	54	39	33	52	57	39	31	42	21	65	33	
21	56	39	45	54	46	74	39	26	57										

$39 - 8 = \square \rightarrow \text{[T]}$

$48 - 15 = \square \rightarrow \text{[E]}$

$105 - 31 = \square \rightarrow \text{[R]}$

$42 - 16 = \square \rightarrow \text{[W]}$

$108 - 30 = \square \rightarrow \text{[F]}$

$92 - 38 = \square \rightarrow \text{[D]}$

$69 - 23 = \square \rightarrow \text{[C]}$

$44 - 5 = \square \rightarrow \text{[O]}$

$61 - 4 = \square \rightarrow \text{[N]}$

$89 - 24 = \square \rightarrow \text{[V]}$

$75 - 23 = \square \rightarrow \text{[S]}$

$38 - 17 = \square \rightarrow \text{[A]}$

$59 - 14 = \square \rightarrow \text{[L]}$

$96 - 35 = \square \rightarrow \text{[I]}$

$71 - 29 = \square \rightarrow \text{[H]}$

$69 - 13 = \square \rightarrow \text{[G]}$

Scratch space:

CLUE 2

A guard found a pile of old coins in the hall. Then they found another pile. We can add them up to learn how the thief writes!

Solve each problem, then write its letter in every clue box that shows the same number.

59 95 83 61 64 61 43 83 70 59 96 28 45 59 83 96 29 59 95

$$41 + 18 = \boxed{} \rightarrow \boxed{\text{T}}$$

$9 + 20 = \boxed{} \rightarrow \boxed{I}$

$44 + 52 = \boxed{} \rightarrow \boxed{\mathbf{W}}$

$25 + 18 = \boxed{} \rightarrow \boxed{\text{P}}$

$$43 + 52 = \boxed{} \rightarrow \boxed{\text{H}}$$

$$29 + 49 = \boxed{} \rightarrow \boxed{\text{N}}$$

$33 + 50 = \boxed{} \rightarrow \boxed{\text{E}}$

$24 + 37 = \square \rightarrow \boxed{\mathbf{S}}$

$9 + 13 = \square \rightarrow \boxed{\mathbf{D}}$

$$26 + 19 = \boxed{} \rightarrow \boxed{0}$$

$20 + 8 = \boxed{} \rightarrow \boxed{\mathbf{R}}$

$$40 + 24 = \boxed{} \rightarrow \boxed{\text{U}}$$

$28 + 42 = \boxed{} \rightarrow \boxed{\text{C}}$

$22 + 19 = \boxed{} \rightarrow \boxed{\mathbf{G}}$

$$29 + 26 = \boxed{} \rightarrow \boxed{\mathbf{A}}$$

Scratch space:

CLUE 3

Solve each problem, then write its letter in every clue box that shows the same number.

The diagram consists of two rows of boxes. The top row has 15 boxes, and the bottom row has 12 boxes. Some boxes are shaded orange and contain the letter 'T', while others are white and contain numbers. The numbers are: Row 1: 59, 61, 58, 67, 98, 58, 72, 58, 63, 46, 26, 72, 58, 14, 97, 32, 59, 61, 58. Row 2: 59, 72, 26, 54, 38, 98, 61, 54, 63, 59, 82, 58.

A diagram illustrating a transition. On the left is an empty rounded rectangle. An arrow points from this rectangle to another rounded rectangle on the right, which contains the letter 'T'.

A diagram illustrating a transformation. On the left is a rectangular box with a question mark inside. An arrow points to the right, where there is a square box containing the letter 'C'.

A diagram illustrating a transition. On the left is a white rounded rectangle with a black border. An arrow points to the right, where there is a black rounded rectangle with a white border containing the letter 'H' in black.

A diagram showing a transition from an empty box to a box containing the letter F. The first box is empty, followed by a right-pointing arrow, and then a second box containing the letter 'F'.

A diagram showing a box with an arrow pointing to a box labeled Y.

A diagram showing a box with an arrow pointing to a box labeled 'E'.

A diagram showing a transition. On the left is a rounded rectangle. An arrow points to the right, where there is another rounded rectangle containing the letter 'D'.

A diagram illustrating a transition. On the left is a simple rectangular box. An arrow points from this box to a second box on the right. The second box is identical in shape but has a thick border and contains the letter 'S' in a bold, sans-serif font.



A diagram showing a transition from an empty box to a box containing the letter **N**. An arrow points from an empty rounded rectangle to a rounded rectangle containing the letter **N**.

A diagram showing a transition from an empty box to a box containing the digit 0. An arrow points from an empty box on the left to a box containing the digit 0 on the right.

A diagram illustrating a transformation. On the left is a simple rectangular box. An arrow points to the right, where a more complex box is shown. This second box has a thick border and contains a vertical bar or the letter 'I' in the center.

A diagram consisting of a rectangular box on the left, followed by a right-pointing arrow, and then another rectangular box on the right containing the letter 'R'.

A diagram showing a transition from an empty box to a box containing the letter L. The first box is empty, followed by a right-pointing arrow, and then a box containing the letter L.



Scratch space:

CLUE 4 Skip counting

We see muddy boot prints going down the long hallway. Let us count them by twos to trace where they go. This leaves a clue about the thief's hair!

Solve each problem, then write its letter in every clue box that shows the same number.

A																			
90	39	50	80	65	28	140	80	27	12	25	12	130	10	21	90	130	80		
	A																		
12	90	55	36	27	50	25	40												

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 → **A**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **N**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 → **W**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 → **S**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **Y**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 → **F**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **G**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 → **U**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 → **R**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **I**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 → **D**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **L**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 → **O**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 → **C**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **B**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 → **H**

Scratch space:

CLUE 5**Missing addends - the last clue**

The display case needs eight glass jars but only five are left. How many more do we need to find? This final clue points right to the thief!

First solve each problem. Then find each answer in the numbered list below and cross that sentence out. One sentence will be left - that is exactly what the villain did!

Step 1 - solve these:

$8 + \underline{\quad} = 14$

$5 + \underline{\quad} = 16$

$9 + \underline{\quad} = 13$

$8 + \underline{\quad} = 13$

$2 + \underline{\quad} = 14$

$1 + \underline{\quad} = 10$

$5 + \underline{\quad} = 6$

$5 + \underline{\quad} = 13$

$2 + \underline{\quad} = 9$

$8 + \underline{\quad} = 11$

$3 + \underline{\quad} = 5$

Step 2 - cross out the sentence with each answer:

1. The villain wound up the pocket sundial, then unrolled the dusty scroll map.
2. The villain flipped the sand timer, then unrolled the dusty scroll map.
3. The villain looked through the spy glass, then dipped the long feather quill.
4. The villain turned the heavy iron key, then dipped the long feather quill.
5. The villain looked through the spy glass, then unrolled the dusty scroll map.
6. The villain wound up the pocket sundial, then dipped the long feather quill.
7. The villain polished the brass compass, then stamped a red wax seal.
8. The villain polished the brass compass, then shined the gold crown.
9. The villain polished the brass compass, then unrolled the dusty scroll map.
10. The villain polished the brass compass, then dipped the long feather quill.
11. The villain polished the brass compass, then dropped a shiny silver coin.
12. The villain wound up the pocket sundial, then dropped a shiny silver coin.

Answer Key

The Museum of Yesterday Mystery

Culprit: Susan

brass compass · feather quill · right handed · curly brown wig · train whistle

Trail: Start 21 → Clue 1 18 → Clue 2 10 → Clue 3 6 → Clue 4 4 → Clue 5 1

Clue 1 (Subtraction): "THE THIEF DOES NOT HAVE A GOLD CROWN"

$39 - 8 = 31$ (T) · $48 - 15 = 33$ (E) · $105 - 31 = 74$ (R) · $42 - 16 = 26$ (W) · $108 - 30 = 78$ (F) · $92 - 38 = 54$ (D) · $69 - 23 = 46$ (C) · $44 - 5 = 39$ (O) · $61 - 4 = 57$ (N) · $89 - 24 = 65$ (V) · $75 - 23 = 52$ (S) · $38 - 17 = 21$ (A) · $59 - 14 = 45$ (L) · $96 - 35 = 61$ (I) · $71 - 29 = 42$ (H) · $69 - 13 = 56$ (G)

Clue 2 (Addition): "THE SUSPECT WROTE WITH THEIR RIGHT HAND"

$41 + 18 = 59$ (T) · $9 + 20 = 29$ (I) · $44 + 52 = 96$ (W) · $25 + 18 = 43$ (P) · $43 + 52 = 95$ (H) · $29 + 49 = 78$ (N) · $33 + 50 = 83$ (E) · $24 + 37 = 61$ (S) · $9 + 13 = 22$ (D) · $26 + 19 = 45$ (O) · $20 + 8 = 28$ (R) · $40 + 24 = 64$ (U) · $28 + 42 = 70$ (C) · $22 + 19 = 41$ (G) · $29 + 26 = 55$ (A)

Clue 3 (Place value): "THEY WERE SCARED OF THE TRAIN WHISTLE"

What number has 5 tens and 9 ones? = 59 (T) · What number has 4 tens and 6 ones? = 46 (C) · What number has 6 tens and 1 one? = 61 (H) · What number has 3 tens and 2 ones? = 32 (F) · What number has 6 tens and 7 ones? = 67 (Y) · What number has 5 tens and 8 ones? = 58 (E) · What number has 1 ten and 4 ones? = 14 (D) · What number has 6 tens and 3 ones? = 63 (S) · What number has 9 tens and 8 ones? = 98 (W) · What number has 3 tens and 8 ones? = 38 (N) · What number has 9 tens and 7 ones? = 97 (O) · What number has 5 tens and 4 ones? = 54 (I) · What number has 7 tens and 2 ones? = 72 (R) · What number has 8 tens and 2 ones? = 82 (L) · What number has 2 tens and 6 ones? = 26 (A)

Clue 4 (Skip counting): "A CURLY BROWN WIG HAIR WAS FOUND"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, __, 100, 110 = 90 (A) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (N) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, __, 14, 16 = 12 (W) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, __, 60, 65 = 55 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (Y) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, __, 39, 42 = 36 (F) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (G) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, __, 60, 70 = 50 (U) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (R) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 = 130 (I) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, __, 45, 50 = 40 (D) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (L) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, __, 30, 33 = 27 (O) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, __, 42, 45 = 39 (C) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (B) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, __, 24, 27 = 21 (H)

Clue 5 (Missing addends): surviving statement is box 10 → Susan

$8 + \underline{\quad} = 14 = 6$ · $5 + \underline{\quad} = 16 = 11$ · $9 + \underline{\quad} = 13 = 4$ · $8 + \underline{\quad} = 13 = 5$ · $2 + \underline{\quad} = 14 = 12$ · $1 + \underline{\quad} = 10 = 9$ · $5 + \underline{\quad} = 6 = 1$ · $5 + \underline{\quad} = 13 = 8$ · $2 + \underline{\quad} = 9 = 7$ · $8 + \underline{\quad} = 11 = 3$ · $3 + \underline{\quad} = 5 = 2$